REMARKS/ARGUMENTS

Claims 1, 24, and 29 have been amended. No new matter is introduced by the amendments of these claims. The amendments of claims 1, 24, and 29 are supported by paragraphs 0019 and 0020 of the Specification, among other places. Accordingly, claims 1-11 and 24-37 remain pending.

The Examiner rejected claims 1-11 and 24-37 under 35 U.S.C. §103(a) as being unpatentable over RFC791: Internet Protocol – DARPA Internet Program Protocol Specification, hereinafter RFC791, and further in view of applicant's disclosure of prior art and Lubber, U.S. patent 7,149,769. The Examiner's rejections are respectfully traversed as follows.

The arguments raised in previous responses are renewed. The claimed features in a Fibre Channel fabric are not obvious in light of the cited references, particularly RFC 791 on IP networking. However, the claims have been amended in the interests of advancing prosecution. Amended claim 1 now recites the feature "identifying each fragment with a one-bit sequence number, wherein the target entity accepts a fragment if the sequence number bit differs from the previous fragment and rejects the fragment if the sequence number bit matches the previous fragment". This amendment is supported by the Specification, including passages such as

> "Similarly, the Sequence Number is transitioned (i.e., from "1" to "0" or "0" to "1") only after the acknowledgment from the previous fragment has been received. Thus, when a receiving entity receives a fragment having a Sequence Number that differs than the previous fragment, the receiving entity recognizes it as a new fragment and accepts it. On the other hand, if the Sequence Number is the same, indicating that the sending entity is sending a duplicate of the fragment, then the receiving entity will discard it and send an acknowledgement to the sending entity. Since the Sequence Number simply alternates states, the field needs to be only one bit wide in this embodiment." (para. [0019])

This feature is not taught or suggested by the cited references. RFC791 describes using a fragment offset to identify the position of fragments in the original packet.

> "The internet fragmentation and reassembly procedure needs to be able to break a datagram into an almost arbitrary number of pieces that can be later reassembled. The receiver of the fragments uses the identification field to ensure that fragments of different datagrams are not mixed. The fragment offset field tells the receiver the position of a fragment in the original datagram. The fragment offset and length determine the portion of the original datagram covered by this fragment. The more-fragments flag indicates (by being reset) the last fragment. These fields provide sufficient information to reassemble datagrams."
>
> (RFC 791, p. 8)

The size of this field is described as:

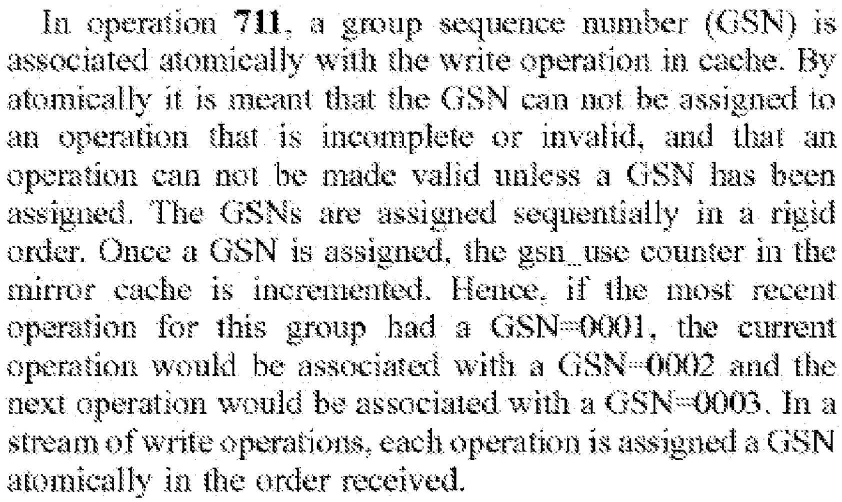
> "Fragment Offset: 13 bits
>
> This field indicates where in the datagram this fragment belongs.
> The fragment offset is measured in units of 8 octets (64 bits). The
> first fragment has offset zero."
>
> (RFC 791, p. 13-14)

The procedure for setting the fragment offset field includes:

> "The second portion of the data is placed in the second new internet datagram, and the total length field is set to the length of the second datagram. The more-fragments flag carries the same value as the long datagram. The fragment offset field of the second new internet datagram is set to the value of that field in the long datagram plus NFB [Number of Fragment Blocks]. This procedure can be generalized for an n-way split, rather than the two-way split described."
>
> (RFC 791, p. 9)

Thus according to RFC 791, the fragment offset field which determines the sequence of fragments in a fragmented IP packet contains 13 bits. More importantly, the RFC requires that fragments after the first have a fragment offset set to the offset of the previous fragment plus the number of blocks in the previous fragment. A one-bit sequence number does not meet these requirements. Not only is the size in bits smaller than required, but a one-bit sequence number does not provide enough values to operate in the described manner. Consequently, RFC 791 does not teach or suggest the claimed feature. In fact, RFC 791 teaches away from the claimed feature.

Similarly, Lubber does not teach or suggest the feature of a one-bit sequence number with alternating values. Lubber describes group sequence numbers as follows:



> In operation **711**, a group sequence number (GSN) is associated atomically with the write operation in cache. By atomically it is meant that the GSN can not be assigned to an operation that is incomplete or invalid, and that an operation can not be made valid unless a GSN has been assigned. The GSNs are assigned sequentially in a rigid order. Once a GSN is assigned, the gsn_use counter in the mirror cache is incremented. Hence, if the most recent operation for this group had a GSN=0001, the current operation would be associated with a GSN=0002 and the next operation would be associated with a GSN=0003. In a stream of write operations, each operation is assigned a GSN atomically in the order received.

(Lubber, col 12 lines 53-65)

As with RFC 791, Lubber's sequence numbers increase sequentially with each operation. This is inconsistent with a one-bit sequence number with alternating values. It is also worth noting that Lubber's sequence numbers apply to write operations, not message fragments. Thus Lubber does not teach or suggest the claimed feature either. Similarly, Scheible, which makes no mention of sequence numbers, does not teach or suggest the claimed feature either.

Consequently, none of the references alone or in combination teach or suggest the amended feature of claim 1. The 103 rejection of claim 1 is believed overcome. Independent claims 24 and 29 have been similarly amended. Thus all remaining claims incorporate a similar feature. By the arguments presented above, the 103 rejections of these claims are believed overcome as well.

In light of the above remarks, the rejections to the independent claims are believed overcome for at least the reasons noted above. Applicants' Representative believes that all pending claims are allowable in their present form. If the Examiner has any questions or concerns for Applicants' Representative, the Examiner is encouraged to contact the Undersigned at the number provided below. If any additional fees are due in connection with this filing, the Commissioner is authorized to charge Deposit Account 504480 (Order No. ANDIP030).

Respectfully submitted,
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